

I. INTRODUCTION

This source has applied for a Clean Air Act Permit Program (CAAPP) operating permit for its existing operation. The CAAPP is the program established in Illinois for the operating permits for significant stationary sources required by the federal Clean Air Act, as amended in 1990. The conditions in a CAAPP permit are enforceable by both the Illinois Environmental Protection Agency (Illinois EPA) and the USEPA.

The source has also requested a revised permit 99110042 that incorporates commitments that it has made as part of a Compliance Commitment Agreement to address changes in the configuration of the facility, including stack and building heights, location of fence lines and other minor site changes. These commitments include several operational restrictions of the CTs while firing on fuel oil notably lowering oil sulfur content by 4 percent. Dispersion modeling submitted by Zion Energy with the commitments demonstrate that the changes to the design of the facility do not result in the facility having air quality impacts that are substantially higher than addressed with the original design for the facility. In particular, these commitments assure that SO₂ impacts on a 3-hour average stay below 25 ug/m³, the applicable significant impact level. The Illinois EPA has also revised the permit so that it no longer addresses units that the Permittee is no longer authorized to construct eliminating the need to include certain restrictions in the permit.

In conjunction with its CAAPP application, the source also requests an Acid Rain Phase II Permit. The acid rain permit contains provisions related to sulfur dioxide (SO₂) emissions and requires the owners and operators to hold SO₂ allowances to account for SO₂ emissions. An allowance is a limited authorization to emit up to one ton of SO₂ during or after a specified calendar year. Although this plant was not eligible for an allowance allocated by USEPA, the owners or operators may obtain SO₂ allowances to cover emissions from other sources under a marketable allowance program.

Zion Energy is located at 5701 West Ninth Street. The source utilizes three natural gas fired turbines with distillate oil as back-up fuel to generate electricity. In addition, the turbines are each equipped, operated, and maintained with low NO_x combustors for natural gas firing and water injection for oil firing.

II. EMISSION UNITS

Significant emission units at this source are as follows:

Emission Unit	Description	Date Constructed	Emission Control Equipment
CT-1, CT-2, and CT-3	Three 160 MW Natural Gas Fired Turbines with Distillate Oil Back-up (1,719 mmBtu/hr Natural Gas and 1,928 mmBtu/hr Distillate Oil)	Aug 2001 (CT-1,CT-2) Sep 2002 (CT-3)	Low NO _x Combustors (NG Firing) and Water Injection (Oil Firing)

III. EMISSIONS

This source is required to have a CAAPP permit since it is a major source of emissions.

For purposes of fees, the source is allowed the following emissions:

Pollutant	Tons/Year
Volatile Organic Material (VOM)	13.38
Sulfur Dioxide (SO ₂)	80.76
Particulate Matter (PM)	84.56
Nitrogen Oxides (NO _x)	407.92
HAP, not included in VOM or PM	-
Total	586.62

IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board's emission standards. The Board's emission standards represent the basic requirements for sources in Illinois.

All emission sources in Illinois must comply with the federal New Source Performance Standards (NSPS). The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

All emission sources in Illinois must comply with the federal National Emission Standards for Hazardous Air Pollutants (NESHAP). The Illinois EPA is administering NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.

Because this source is located in the Chicago ozone non-attainment area and emits volatile organic material (VOM), the source must comply with Illinois' Emissions Reduction Market System (ERMS). The ERMS is a market-based program designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as further described in Section 6.0 of the permit. The permit contains provisions restricting the seasonal emissions of VOM from the source to less than 10 so that this source does not qualify as a participating source and does not have to hold allotment trading units for its emissions.

This source will be an affected source subject to the NO_x Trading Program. This is a new interstate market-based program designed to reduce NO_x emissions from electric power plants and other large NO_x sources beginning in 2004. One of the administrative requirements of this permit for an affected source is to hold a "budget permit," which sets forth the various requirements of the NO_x Trading

Program that would apply to the affected source. The Illinois EPA is proposing to include this budget permit in Section 6.0 of this CAAPP.

V. PROPOSED PERMIT

CAAPP

A CAAPP permit contains all conditions that apply to a source and a listing of the applicable state and federal air pollution control regulations that are the origin of the conditions. The permit also contains emission limits and appropriate compliance procedures. The appropriate compliance procedures may include inspections, work practices, monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis.

Title I

A combined Title I/CAAPP permit contains terms and conditions established by the Illinois EPA pursuant to authority found in Title I provisions, e.g., 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Notwithstanding the expiration date on the first page of the permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit, and revise construction permit 99110042.

Comments are requested on the proposed actions by the Illinois EPA and the proposed conditions on the draft permits.